AB010. OA02.01: Comparison of factors affecting length of stay after surgery for thymic tumors: minimally invasive *vs.* open surgeries

Kwon Joong Na, Samina Park, In Kyu Park, Young Tae Kim, Chang Hyun Kang

Department of Thoracic and Cardiovascular Surgery, Seoul National University Hospital, Seoul National University College of Medicine, Seoul, Republic of Korea

Correspondence to: Kwon Joong Na. Department of Thoracic and Cardiovascular Surgery, Seoul National University Hospital, Seoul National University College of Medicine, 101 Daehak-ro, Jongno-gu, 03080, Seoul, Republic of Korea. Email: kjna85@gmail.com.

Background: Minimally invasive thymectomy (MIT) has enhanced early postoperative recovery and shortened the postoperative length of hospital stay (LOS). However, factors affecting the LOS in MIT and open thymectomy (OT) have not been well documented. This study aims to evaluate the predicting factors affecting the LOS after MIT and OT.

Methods: A retrospective review of 742 patients who underwent surgical resection for thymic tumors at a single institution between January 2008 and June 2018 was undertaken. Considering that more complex operations were performed under OT, we conducted risk factor analysis for the LOS separately in the MIT and OT group. Patient factors, tumor factors, and surgical factors were analyzed by linear regression model to assess the association with the LOS.

Results: During the study period, 417 (56.2%) and 325 (43.8%) patients underwent MIT and OT, respectively. Mean LOS were significantly different between two groups (MIT group =3.2±3.5 days; OT group 7.2±9.4 days; P<0.001). Significant predictors for LOS identified by multivariable model in MIT group were myasthenia gravis (P<0.001), FEV1 <80% (P=0.026), lymph node dissection (P=0.030), combined resection of adjacent structures (P<0.001), and concurrent minor (P<0.001) or major (P<0.001) operation. In OT group, Charlson comorbidity index ≥2 (P=0.005), FEV1 <80% (P=0.041), large size (≥7 cm) in preoperative CT (P=0.020) were identified as significant predictors for LOS.

Conclusions: While comorbid conditions and size of thymic tumors were predictive of longer LOS in the OT group, mostly more complex surgery were significant predictors in the MIT group and comorbid status did not affect the LOS in MIT group. This result suggests that MIT may be more effective in comorbid patients, however, the enhanced recovery effect decreases in proportion to the complexity of operation in MIT compared to OT.

Keywords: Risk factors; prolonged length of stay; minimally invasive thymectomy

doi: 10.21037/med.2018.AB010

Cite this abstract as: Na KJ, Park S, Park IK, Kim YT, Kang CH. Comparison of factors affecting length of stay after surgery for thymic tumors: minimally invasive *vs.* open surgeries. Mediastinum 2018;2:AB010.